

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
	County and State Funded		Revised 09-09-16
	Fairmont Heights High Replacement	Fairmont Heights HS replacement was fully funded by the State in FY16 for \$10,985,000 and partially funded by the County in FY2017. This request is for the balance of County funds to support construction and other soft costs. This school will be a replacement school designed to the State's High Performance Building guidelines to achieve a LEED Gold 2009 for Schools (New Construction and Major Renovation project). The school is designed for with overall sq. ft. of 190,058. PGCPS has acquired (9) additional acres which is included in the 38.7 acres to support the educational program requirements. The Board of Education and the County Council approved a school for a State Rated Capacity of 953 seats. This would represent a replacement school with no added seats. Based on the State's approval of the feasibility study to support a replacement school, the school will include a state-of-the-art educational facility to support the Secondary School Reform initiative which will include an Academy of Environmental Studies, Academy of Informational Technology, Academy of Performing Arts, Wellness Center, Regional Special Education Program, ESOL, and other educational programs, including the CASE program of study. This project includes a 3,000 sq. ft. (State approved 2,264 SF) for Cooperative Use Space (Health Suite with Wellness Center and increased size of theatre). Construction has started and completion is scheduled for October 2017.	\$9,000,000
1	Tulip Grove ES Major Renovation and Addition	Tulip Grove Elementary is a one-story, 42,275 sq. ft. facility located on a 10 acre site, in Bowie MD. Built in 1964 with a small addition in 1971, the school had a State Rated Capacity of 388 studenys in 2014 before closing for a major renovation and addition project. This is one of the nine schools recommended for replacement in the May 8, 2008, updated Facility Assessment Study. The 2012 Updated Facility Assessment confirmed that this school had an FCI of 76.28% which indicates poor condition. This school is currently undergoing major renovations of existing 23,350 SF and an addition of 41,480 SF to meet the educational requirements. The facility will be designed with new state-of-the-art "GREEN" school features, for a larger State Rated Capacity of 411 students. Prior State Capital Improvements include: 2002 \$54,596 TIMS; 2001 \$83,418 Entire Roof Replacement; 2009 \$487,000 HVAC Renovation.	\$5,964,494

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2	Stephen Decatur Middle Renovation/Addition Special Education Inclusion (SEI)	<p>Stephen Decatur Middle School is a one-story, 120,070 sq. ft. facility located on a 16.4 acre site, in Clinton, MD. The original building was constructed in 1971 as an open space school with a small addition in 1994. Stephen Decatur Middle School currently has a State Rated Capacity of 901 with a projected enrollment of 796 in 2023. Even with the reorganization to K-5/6-8, the projected enrollment is anticipated to remain within the PGCPSS 800 student MS prototype capacity over the next seven years. In addition to the comprehensive program, there is a CRI (Community Reference Instruction) program at the school. PGCPSS is proposing a special education inclusion (SEI) renovation project with an addition to serve the special education Regional program students currently located at the Tanglewood Regional stand-alone facility. This is part of a District initiative to close three of the four stand-alone Regional Schools. M-NCPPC has a community center and other support spaces at the school. In FY16 the State approved planning for a renovation of 11,240 net sq. ft. (17,000 GSF) in the southeast corner of the building for the CRI/Regional Program and an addition of 8,600 (GSF 12,040) for the General Music, Instrument Storage, Ensemble/Band Space, Family and Consumer Science (FACS)/STEAM (Science, Technology, Engineering, Art and Math) Lab, Storage and Therapy Pool with lockers. The existing music rooms do not meet the Board adopted standards in size and acoustic requirements, and no other space in the building could accommodate the needed ceiling height. The therapy pool will serve all K-12 Regional students in the area. The current concept plan shows the previously identified FACS lab replaced with a more educationally relevant STEAM Lab. Lacking an adequate number of science labs for the projected 800 student enrollment the concept plan also includes renovation of the existing classrooms to create two new science labs. (See proposed sketch plan.) The educational specification for the Regional special education program requires large classrooms (1,000+ SF) to accommodate equipment and therapy needs. The design includes five self-contained classrooms with adjacent toilet/changing spaces, storage for orthopedic equipment and support programs as well as related services including Speech and Language, OT, PT, offices, a conference room, an expanded health suite, and records storage. The total renovation proposed is 23,740 GSF and the total addition is 5,300 GSF for a combined total of 29,040 GSF. This request is for the total \$11,527,147 estimated construction cost for the renovation plus addition to accommodate SEI program.</p>	\$11,527,147

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3	C. Elizabeth Rieg SC Limited Renovation	<p>Catherine Elizabeth Rieg Regional is a one-story, 45,132 sq. ft. facility located on a 9-acre site, in Bowie, MD. Built in 1978, the school served 103 students in SY2015. The school is currently planned to accommodate students with severe and profound disabilities from all PGCPs schools and to provide them with a full continuum of Special Education Services including: a therapy tank with locker rooms, toilet/changing rooms, special education classrooms and storage, equipment storage, laundry room, speech therapy, coordinators and other related services offices, a conference room, health room with toilets, computer lab, sensory integration lab, records storage, and OT, PT and MOVE. PGCPs is proposing a limited renovation project with educational enhancements.</p> <p>As a Limited Renovation Project this project must include five major systemic improvements in addition to educational upgrades. Systemic Improvements include the following:</p> <ol style="list-style-type: none"> (1) The replacement of the existing Univent and Piping, (2) Exterior and Interior Doors and Hardware Replacement, (3) The replacement of the existing Acoustical Ceiling System, (4) The replacement of the Sprinkler System to meet current code and Fire Protection, (5) Replacement of the existing water system from a 3" to a 6" main, (6) Replacement of the corridor VCT flooring in the entire building, and, (7) The replacement of the Gym/Multipurpose Room Flooring to meet ADA requirements and program requirements. <p>Educational Enhancements will include the following:</p> <ol style="list-style-type: none"> (A) Renovation of the Health Suite to meet PGCPs standards, (B) Renovation of the Life Skills Lab with the Instructional Kitchen, Laundry and Storage, (C) Renovation of workshop space into a Speech Therapy Room, (D) Renovation of Classroom space into an Occupational/Physical Therapy Lab (OT/PT), (E) Conversion of the four storage and Observatory spaces into ADA toilet/changing rooms and storage, (F) Renovation of the Bathroom/Plumbing Fixtures/Toilet/Shower in classrooms 222 & 228 <p>The estimated capital budget for the proposed limited renovation including site, building, FFE, AE and soft costs is \$8,210,000, with a State share of \$4,001,000 and County \$4,209,000. Prior State Capital Improvements to remain include: \$83,003 to replace 25,000 sq. ft. of 1996 Roof; ASP 2008 - \$69,581 Replacement of folding partitions in multi-purpose room; ASP 2013 - \$28,600 Replace white coat on therapy pool; as well as TIMS 2002- \$47,520 to be replaced in some areas to be newly renovated. State planning was approved in FY16. This request is for the balance of the construction funding. A portion of construction funds (\$7.710 million) is pending approval in FY17-- \$4 million from ERGC and \$3.709 million from realigned County funds.</p>	\$10,010,000

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4	Bowie HS Annex Limited Renovation	<p>Bowie-Belair HS Annex is a split level building with a ground and first floor of 102,351 sq. ft. located on a 16.06 acre site, in Bowie, MD. The original building was constructed in 1963. Only 1st year 9th graders attend the Bowie Annex. This request is for funding approval for a limited renovation and improvements to the existing instructional spaces to include selected educational program enhancements and a minimum of five systemic improvements, as required.</p> <p>Systemic Improvements will include the following throughout the entire building:</p> <p>(1) The removal and replacement of the suspended ceiling system, (2) The replacement of all Univent and related piping and plumbing accessories, (3) The replacement of the old piping with new Hot and Cold Piping System, (4) Central Air Conditioning, (5) Replacement of the 1989 re-roofing of the original building including canopies for a total square footage of 78,604 sq. ft. (See the attached preliminary drawing indicating roof areas.)The existing roof slope will be improved where possible with tapered insulation and crickets will be installed between drains to improve drainage. All of the original 1963 perimeter metal and drains and expansion joints will be replaced, (6) Replacement of the fire sprinkler system. The existing water service will not be suitable to supply the entire building structure; it may require a fire system pump to assist with associated accessories to indicate piping, valves etc. Fire code may require a stand pipe system if structure exceeds building height and area limits. Add pipe hangers to support piping. Supply sprinkler head in area to meet fire code specifications. The sprinkler system will be installed according to 2012 NFPA 13 and 2012 IBC code as appropriate. The existing fire alarm system and electrical system is under capacity and able to support this project.</p> <p>Educational enhancements include the following renovations to meet Board adopted educational specifications:</p> <p>(A) One Integrated Science Classroom (123), (B) Two Science Labs and a Prep Room (120,121), (C) Computer Lab (116), (D) Family and Consumer Lab (114), (E) Standard Classrooms, Corridor areas and support Bathroom and Storage spaces. (F) Foundation of Technology Classroom (119)</p> <p>This is a request for the balance (\$11.97 million) of construction funding. State planning was approved in FY17. A portion of construction funds (\$11.501 million) is pending approval in FY17-- \$5.501 million from ERGC and \$6 million from realigned County funds.</p>	\$23,471,000

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5	William Wirt MS - Renovation/ Replacement	<p>Based on a feasibility study completed in December 2014, William Wirt Middle School is recommended for replacement. Wirt MS was identified as having critical issues related to indoor air quality, a failing building envelope, and severe overutilization. It has therefore been prioritized to be among the first schools to be addressed in the PGCPs modernization program. The current SRC is 850 with a projected 2023 enrollment of 1702 after 6th grade realignment to provide enrollment relief for the elementary school feeders. Using the educational specifications developed for the FY2015 William Wirt Feasibility Study, the Educational Facility Master Plan (EFMP) recommends 64,000 additional SF for a maximum capacity of 1200. Cooperative use space is requested to support existing community partners to include meeting/classroom space, a family center, pantry, storage, and partnership office space. A letter of support will be submitted. Additional enrollment relief will be provided by opening of a new middle school scheduled to open in school year 2021 in this planning area. The final scope will be determined during the design process. Local funds were approved in FY2016 to contract for environmental studies, finalize design capacity, and begin the design process. In FY 17 local planning funds of \$1.5 million were approved. This request of \$9.5 million is for construction funds to begin the project in the spring 2018.</p>	\$9,500,000
6	William Schmidt Outdoor Educational Center Major Renovation and Addition	<p>The William S. Schmidt Outdoor Educational Center is comprised of several buildings on 450 acres in Brandywine, Maryland. The oldest building, 14,772 sq.ft. former Orme Elementary School was first built in 1956, with a 2,611 sq.ft. addition in 1959 and is located at 18501 Aquasco Road. Other buildings (20,763 sq. ft.) were added to the property between 1975 and 1982. Under COMAR 13.A.04.17, each local school system shall provide in public schools a comprehensive, multi-disciplinary environmental education program infused within current curricular offerings and aligned with the Maryland Environmental Literacy Curriculum. The Schmidt Center program focuses on providing additional hands-on environmental educational experiences to the students of Prince George's County Public Schools. The Schmidt Center currently hosts overnight trips for 5th grade, a day program for 1st grade (pilot program started in 2015) and overnight programs for middle and high school PGCPs students. The request is for approval of a major renovation/modernization of the campus with some new construction to increase capacity and accommodate special needs students.</p> <p>A master plan and feasibility study for the renovation/modernization and addition of William Schmidt Outdoor Educational Center was conducted from August 2015 to January 2016. The study provided an assessment of the existing conditions of the site and buildings, and analyzed the value and limitations these conditions impose upon the various approaches to this redevelopment project. The scope of the project listed here is the result of the study that was unanimously approved by the committee.</p>	

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7	William Schmidt Outdoor Educational Center Major Renovation and Addition	<p>Phase 1 (New Construction): Construction of new residential building(s), Villages II for sleeping capacity of 220 students and 24 adults in 16 cabins and replacement of Villages I for a capacity of 120 students and 24 adults in 12 cabins. The square footage recommendation for the Villages II buildings is approximately 18,000 sq.ft. and for Villages I buildings is approximately 11,000 sq.ft. This will allow for the Orme School building to be used for first grade trips and expand capacity to house more students for overnight visits. Currently the Orme School building has sleeping capacity of 120. With the new residential building(s) and an additional 30 beds, the Schmidt Center will be available for more students, teachers, and parents.</p> <p>A new dining hall nearby the new residential building(s) will support meals for the students and chaperones. Suggested square footage is now 6,500 for the dining hall—it was 3,000 to 5,770 sq. ft. in the FY 2017-22 CIP and Ed Specs. It will have a seating capacity of up to 300 students and 50 adults. A raised platform/stage will be provided at one end of the dining hall for performances.</p> <p>Construction of a new 4,000 sq. ft. Environmental Research Center (ERC) will serve as an educational and community resource lab to reinforce the understanding of sustainability and to provide hands-on instructional space for students of all ages, including the middle and high school students.</p> <p>Construction of two new pavilions for outdoor seating—Pavilion 1 by Villages I would be approximately 3,000 Sq. Ft. and Pavilion 2 near Villages II would be approximately 1,800 Sq. Ft.</p> <p>Exterior site and roadway improvements are also required as the current conditions are deteriorating. Improved road access to the western side of the Schmidt Center campus near existing Horsehead Road may be needed to connect the campus. Phase II (Renovations): The Orme school building was constructed in 1956. The renovations will include HVAC and other safety system upgrades as well as significant programmatic improvements and changes. The purpose of this building will change from a residential facility for fifth grade students as currently used to a site to host first grade field studies (day programs only), a training center for professional staff development for teachers, and classroom space. The existing cafeteria will be reimagined as a large multipurpose room with a stage for various large group activities. Approximately 13,100 sq.ft. Of the Orme Building is recommended for renovation. Approximately 3,750 sq.ft. Of the Neville Administrative Building built in 1982 will be renovated. The property also has two standing tobacco barns, which will be restored, if feasible. One will be used as a teaching space to examine the history of the area and agriculture in Prince George's County.</p> <p style="text-align: right;">This request is for State planning approval and \$1.52 of construction funding.</p> <p>Prior Orme building State Capital Improvements to remain include: Fy 1999 \$111,000, to replace the 14,772 sq. ft. of roof; ASP 2002 \$140,650 Boiler replacement; Fy14 A/C Initiative- Central A/C installation; Fy14 Replace steam piping upgrade lighting in the tunnels.</p>	\$1,520,000

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8	New Adelphi Area Middle School No. 1	<p>Since the PGCPs Board adopted an educational initiative to transition 6th grade students to middle school, the system has been gradually changing to a Grades K-5/6-8 configuration on a 'space available basis.' However, a complete reorganization will not be able to occur in the northern part of the county unless the District adds new middle school capacity. The estimated budget is based on a 1,200 student SRC and approximately 174,000 SF building. The new school will include a three room cluster for students with severe and profound disabilities (Special Education Regional Program) currently located at James duckworth Regional. This is part of a district initiative to close 3 of the 4 stand-alone facilities.</p> <p>PGCPs conducted a Site Feasibility Test Fit study along with a public survey for five possible sites. Of the five sites, the Adelphi Road Park site was ranked as the highest quality and most suitable site for this new middle school. This site was approved by the School Board on May 12, 2016 and will support the educational program defined by the educational specifications, taking into account program delivery, cost and existing conditions.</p> <p>In accordance with the Interagency Committee (IAC) Administrative procedures, PGCPs has already submitted application for Clearinghouse review and approval for the designated use of this site.</p>	\$5,000,000
9	New Glenridge Area Middle School No. 2	<p>Since the PGCPs Board adopted an educational initiative to transition 6th grade students to middle school; the system has been gradually changing to a Grades K-5/6-8 configuration on a 'space available basis.' However, a complete reorganization will not be able to occur in the northern part of the county unless the District adds new middle school capacity. The estimated budget is based on a 1,200 students SRC and approximately 174,000 SF building. The new school will include a three room cluster for students with severe and profound disabilities (Special Education Regional Program) currently located at Margaret Brent Regional stand-alone facility. This is part of a district initiative to close 3 of the 4 stand-alone facilities.</p> <p>PGCPs conducted a Site Feasibility Test Fit study along with a public survey for three possible sites. Of the three sites, the Glenridge Park site was ranked as the highest quality and most suitable site for this new middle school. This site was approved by the School Board on May 12, 2016 and will support the educational program defined by the educational specifications, taking into account program delivery, cost and existing conditions.</p> <p>In accordance with the Interagency Committee (IAC) Administrative procedures, PGCPs has already submitted application for Clearinghouse review and approval for the designated use of this site.</p>	\$5,000,000

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10	Suitland HS Complex - Renovation/ Replacement	A full renovation/replacement is recommended for the entire Suitland High School Campus including the main building, the annex, the auditorium, and the vocational wing driven by educational adequacy deficiencies, an inefficient layout (with four buildings), and the poor condition of the building systems. Suitland HS was identified as having critical systems deterioration and therefore prioritized to be among the first schools to be addressed in the PGCPs modernization program. The recently revised SRC for the Suitland Campus is 2506 with a projected 2023 enrollment of 2048. The EFMP recommended building the school with 2000 student, core capacity which includes a 500 student Center for the Visual and Performing Arts (CVPA). The FY2018 request is for local planning funds to conduct a feasibility study, contract for environmental studies, and, to the extent possible, begin the design process. Because Drew-Freeman Middle School abuts the Suitland Campus, the feasibility study will also include the location and site needs of the middle school, in order to ensure a comprehensive understanding of the campus as a center of learning in the community. In addition, a planning study will be done with the objective of reassigning students from Suitland to Crossland High School. This reassignment of students could balance the enrollments between these high schools and could also increase the projected utilization at Crossland HS. State planning approval is requested in FY 18 and funding will be requested in the FY19 CIP.	\$12,000,000
11	New International School at Langley Park	PGCPs opened two new International High Schools in 2015 to offer traditionally underserved students (i.e. high percentage of at risk, economically disadvantaged English language learners and first generation college goers) and newcomer immigrant students an innovative opportunity to complete a high school diploma in a learning environment customized to their specific learning needs. One school will be located in the northern part of the County where the largest number of newly arrived immigrant students requiring English as a Second Language (ESL) services live. Currently the 'northern school' is housed in relocatable classrooms on the Annapolis Road Academy Campus. The proposed SRC for the International High School is 400 with a projected future enrollment of 400. The draft educational specification for this school recommends a 56,822 SF building. The final scope will be determined during design. The FY2018 request is for State Planning approval and local planning funds to finalize the site selection, conduct a feasibility study, contract for environmental studies, and, to the extent possible, begin the design process. State funding will be requested in the FY19 CIP.	\$2,400,000
12	Benjamin Stoddert MS - Renovation/ Replacement	A full renovation/replacement is recommended for Benjamin Stoddert Middle School driven by educational adequacy deficiencies, an inefficient building layout, and the poor condition of the building systems. Stoddert MS was identified as having critical systems deterioration and therefore prioritized to be among the first schools to be addressed in the PGCPs modernization program. The current SRC is 808 with a projected 2023 enrollment of 621. With 6th grade realignment from the elementary school feeders, middle schools in this planning area are projected to have increased enrollment. The adopted Educational Facilities Master Plan (EFMP) recommends a total of 123,862 Sq. Ft. (22,000 additional SF) for a maximum core capacity of 800. The final capacity will be determined following a planning study to consider the need for boundary changes to determine future enrollment following grade realignment. The FY2018 request is for State planning approval and local planning funds to develop a school specific educational specification, conduct a feasibility study, finalize design capacity, contract for environmental studies, and, to the extent possible, begin the design process. State funding for this project will be requested in the FY19 CIP.	\$4,238,000

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13	Kenmoor MS - Renovation/Replacement	A full renovation/replacement and addition is recommended for Kenmoor Middle School driven by educational adequacy deficiencies, poor condition of the building systems, and overutilization. The current SRC is 695. With 6th grade realignment from elementary school feeders, Kenmoor has a projected 2023 enrollment of up to 920 students. The adopted Educational Facilities Master Plan (EFMP) recommends rebalancing the middle school enrollment in this planning area to reassign students from adjacent middle schools to Kenmoor. Using the Board-adopted prototypical educational specifications, the EFMP recommends a total of 170,381 Sq. Ft. (42,000 additional SF) for a maximum core capacity of 1200. The final capacity will be determined following a planning study to consider the need for a boundary change to determine the future enrollment. The FY2018 request is for local planning funds and State planning approval to develop school specific educational specifications, finalize design capacity, conduct a feasibility study, contract for environmental studies, and, to the extent possible, begin the design process. State funding will be requested in the FY19 CIP.	\$5,800,000
NA	New Northern Area High School No. 1 (Site Acquisition)	A new high school is recommended for the northern part of the County (Planning area 38) driven by current and projected over utilization. The project is aligned with the adopted FY2017 EFMP, Section 5 Facilities Need Analysis. The proposed SRC for the New High School is 1700 with a core capacity of 2000. Using the Board-adopted prototypical educational specifications, the EFMP recommends a 259,000 SF building. The final scope will be determined following a planning study to consider potential boundary changes from surrounding schools. The FY2018 request is for local planning funds for site acquisition. State planning and funding will be requested in the FY2019 CIP.	\$1,000,000
NA	New Elementary School Planning Area 3 (Site Acquisition)	A new elementary school is recommended for the northern part of the County (Planning Area 3) driven by current and projected over utilization. The project is aligned with the adopted FY2017 EFMP, Section 5 Facilities Need Analysis. The proposed SRC for the New Elementary School is 675 with a core capacity for 800. The adopted EFMP recommends one new elementary school in this planning area as well as rebalancing elementary school enrollment in this and neighboring planning areas (PA 4 & 5) by reassigning students and services from other elementary schools to the new elementary school. Using the Board-adopted prototypical educational specifications, the EFMP recommends a 97,000 SF building. The final scope will be determined following a planning study to consider potential boundary changes from surrounding schools. The FY2018 request is for local planning funds for site acquisition. State planning and funding will be requested in the FY2019 CIP.	\$1,000,000

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14	Oaklands ES Roof Replacement	<p>The original school 38,950 sq. ft. building was built in 1964 with a 2,477 sq. ft. addition in 1970. The existing roof was replaced in 1993 and is approximately 23 years old. The industry standard life of a roof is 20 years; therefore, this roof has exceeded the industry standard life and has reached the end of its life cycle. The existing roofing at this facility exhibits deficiencies commensurate with time in service including perimeter leaks/repairs of considerable travel, drain bowl and drain sump leaks, discernable soft spots in the field of the roofing, selective cold process repairs in the field of roofing and base flashing as well as evidence of ponding in front of gutters and drains. Several reactive repairs have been made at expansion joints, pitch pockets and equipment curbs. The scope of work includes demolition of existing built-up roofing and insulation, provision and installation of approximately 44,875 gross SF of new built-up roofing and insulation including slope improvement with new tapered insulation. This includes the original building, 1970 addition and the main entrance canopy (approximately 1,161 gross SF). The scope of this project also includes replacing all drains gutters and downspouts, expansion joints, perimeter metal including drip cap and fascia. An area of bad roof deck (approx. 1,000SF) over the Boiler Room will be demolished and replaced prior to re-roofing.</p>	\$1,098,000
15	Central HS Gymnasium Renovation including Bleachers Replacement and Painting	<p>The original school building was built in 1961 with additions in 1963 and 1982. The existing interior gym bleachers were originally installed in 1961, and are steel with wooden seating. These bleachers are 55 years old and have exceeded their service life causing repeated work orders and safety concerns. The bleachers are not ADA compliant, do not have safety railings and are worn beyond repair and replacement. The parts for the bleacher system are obsolete and hard to procure.</p> <p>The scope of this project includes demolishing the existing bleacher system, removal of all related debris, and installation of a new Hussey Bleacher system. The new bleacher system will include; Integral power system, ADA seating spaces, intermediate aisle steps and store in place aisle rails. The scope of this project also includes needed interior painting of the Gymnasium. The painting will include preparation of all surfaces to be painted including scraping, patching, caulking and cleaning prior to painting. The recommended supplier is McCormick Paints brand REVO.</p>	\$1,405,000

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16	Rogers Heights ES Elevator Conveyance System Modification	<p>The partial two-story building was built in 1959 with additions in 1961, 1978, 1989 and 1997. The two stop conveyance unit with relay logic controls and solid state boards was installed in 1978 manufactured by Dover Elevator Company and is the only elevator at this facility. The unit is approximately 38 years old and has exceeded its life cycle. (The industry standard life cycle of an elevator is approximately 20 years.) The elevator has experienced several breakdowns resulting in an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located across from the main office on the first floor.</p> <p>The scope of this project includes total replacement of the two stop unit including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project may also include painting the hoist way entrance opening that would be painted to match, or replaced with new stainless steel. This unit does not have fire recall which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$319,000

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17	Eleanor Roosevelt HS Elevator Conveyance System Modification	<p>The three-story school building was built in 1974 with a small addition in 1990. The three stop conveyance unit was installed in 1974 manufactured by Montgomery Elevator Company. The elevator is used extensively because the facility is open seven days a week to students and community. The unit still has the original main controller, pump and associated wiring. The elevator is approximately 42 years old and has exceeded its life cycle. (The industry standard life cycle of an elevator is approximately 20 years.) The elevator has experienced several breakdowns with an increased number of service calls due to its usage and age. From January 2015 to present, we received approximately 20 service calls for various issues that resulted in an interruption of service. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located next to the boiler room on the first floor.</p> <p>The scope of this project includes total replacement of the “three stop” unit including replacing the controller with all associated wiring, the hydraulic pump unit, motor and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, new slide guides, car position indicators and drawings. The new unit will have an updated fire service in accordance with the latest version of ASME/ANSI A17.1 code. All associated fire alarm devices will be maintained. The scope of the project may also include painting the hoist way entrance opening,, or replacing it with new stainless steel, and the exterior cab doors. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$324,000

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18	Riverdale ES 1 RTU above Kitchen & 1 AHU in Boiler Room Replacement	<p>The original school building was constructed in 1978. The school is heated by two dual fuel 35 HP hot water boilers. Two dual temperature hot/chill water pumps circulate hot water to the building's, air handler units (AHU), roof top units (RTU), and variable air volume units (VAV), located in class room ceilings. The school is cooled by a York water cooled chiller and Evapco cooling tower. The same two dual temp pumps circulate chilled water to the building's AHUs, RTUs, and VAV's. Cooling is provided to spaces by the RTU's and AHU's. The school's temperature controls are pneumatically controlled. Due to the age of the pneumatic lines, actuators, dampers, bladders, and diaphragms the equipment has very limited temperature control. This has resulted in busted heat coils in winter causing closure of the school due to lack of heat. It also has caused environmental and efficiency issues during the air conditioning season due to over cooling of the classrooms. This has resulted in an uncomfortable learning environment for students.</p> <p>The scope of this project is to replace the original 1978 fresh air RTU, which serves as the kitchen fresh air make up unit located on the roof above the kitchen area, with a new fresh air make up unit with hot water and chill water coils. The existing fresh air unit has exceeded its life cycle and has had repeated failures causing occupant discomfort due to over/under heating to the space. The new fresh air unit will be a Trane, York, Carrier, or Daikin. It will be Direct Digital Controlled (DDC), energy efficient and BAC net ready to connect with our existing energy management system, and be electrically interlocked with our existing hood exhaust fan, to only run when the fresh air unit is operated.</p> <p>The scope of this project also includes the replacement of an original 1978 perimeter heating AHU, located in the boiler room. This AHU supplies heated air to the north and south perimeter side of the building (two zones), through two pneumatically controlled reheat coils, located in the supply duct of the perimeter heat AHU. This AHU has exceeded its life cycle, has had numerous issues related to over/under heating complaints. The new AHU will be a Trane, Carrier, York, or Daikin and will have Direct Digital Controls (DDC) for stable and efficient operation. The new AHU will also be BAC net ready to connect to our existing energy management system. The scope of the project also includes replacement of exhaust for sewer injector pit in the boiler room. This exhaust fan runs 24/7, was originally installed in 1978 and has exceeded its life cycle. The RTU and AHU replacement will include the replacement of valves, dampers, sensors, actuators, and safety controls, and any piece of building equipment that has a pneumatic control or sensor readings related to equipment that is in this scope for replacement. All new control work will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) control switch and placed on our existing Energy Management System that is a Tridium Server, version 4.0.</p>	\$255,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
19	Rockledge ES Roof Replacement	<p>The one-story school building was built in 1968. The roof was replaced in 1994 and is approximately 23 years old. The industry standard life of a roof is 20 years; therefore this roof has exceeded the end of its life cycle. The roofing exhibits deficiencies commensurate with time in service including perimeter leaks/repairs of considerable travel, drain bowl and drain sump leaks, discernable soft spots in the field of the roofing, selective cold process repairs in the field of roofing and base flashing as well as evidence of ponding in front of gutters and drains. Existing metal standing-seam and batten seam roofing and fascia are in poor condition with prevalent chalking and failure of finish and exhibit signs of corrosion. Several reactive repairs have been made at expansion joints, pitch pockets and equipment curbs.</p> <p>The scope of work includes demolition of existing built-up roofing and insulation, provision and installation of approximately 56,252 SF of new built-up roofing and insulation including slope improvement with new tapered insulation. All standing-seam (approximately 4,600 SF) and batten-seam metal roofing (approximately 4,000 SF) will also be replaced as a part of this project. The scope of this project also includes replacing all drains gutters and downspouts, expansion joints, perimeter metal including drip cap and fascia.</p>	\$1,431,000
20	Judge Sylvania Woods ES Chiller Replacement	<p>The 84,600 sq. ft. school building was constructed in 1999. The school is cooled by means of the original air cooled chiller. The chiller is located at the rear of the building by the kitchen loading dock inside a brick enclosure. This air cooled chiller has surpassed its life cycle and uses Freon R-22, which is not EPA compliant. This chiller has had numerous break downs and has affected the comfort and learning environment for the students and staff.</p> <p>The scope of this project includes removal/replacement of the original 1999 Mcquay air cooled chiller with a Trane, Carrier, York, Diakin, or approved equal. The new chiller will be energy efficient and contain 410A Freon an EPA Compliant refrigerant. The new chiller will have Direct Digital Controls (DDC), for stable and efficient operation. The scope of the project will also include the replacement of valves, dampers, sensors, actuators, and safety controls, and any piece of building equipment that has a pneumatic control or sensor readings related to equipment that is in scope for replacement. All new control work will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand off Auto (HOA) control switch and placed on our existing Energy Management System Tridium Server, upgraded to version 4.0.</p>	\$639,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
21	Kingsford ES Chiller Replacement	<p>The 86,814 sq. ft. school building was constructed in 1994. The school is cooled by means of the original chiller. The chiller is located at the rear of the building by the kitchen loading dock, inside a brick enclosure. The chiller has exceeded its life cycle and contains HCFC refrigerant that has been phased out. The units have experienced several issues including; compressor failures, refrigerant leaks (R-22), condenser fan and coil failures.</p> <p>The scope of this project includes removal/replacement of the original 1994 Trane air cooled chiller with a Trane, Carrier, York, Diakin, or approved equal. The new chiller will be energy efficient and contain 410A Freon an EPA compliant refrigerant. The new chiller will have Direct Digital Controls (DDC) for stable and efficient operation. The scope of the project will also include a total control replacement of the existing pneumatic controls and Meatsys BAC net integration. All pneumatic controls on all building equipment will be replaced with DDC that can be brought back and placed on our Tridium based front end Energy Management System. The scope also includes the replacement of valves, dampers, sensors, actuators, and safety controls, and any piece of building equipment that has a pneumatic control or sensor readings related to equipment that is in this scope for replacement. All new control work will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) and placed on our existing Energy Management System Tridium Server, version 4.0.</p>	\$639,000
22	Largo HS Replacement of existing lighting with LED Lighting in Gymnasium	<p>The original school building was built in 1970 with an addition in 1974. The school gymnasium currently has fluorescent lighting that was installed during the construction of the original building. The current lighting system is 46 years old and has exceeded its service life. Also, this lighting system is not energy efficient. The scope of this project includes replacing all existing gymnasium fluorescent lighting with new LED lighting. The existing lights are to be disposed of in accordance with industry guidelines. The new LED lights will be specified to provide the same lumens rating as the existing lights. The light fixture manufacturer is to provide a ten (10) year warranty. The scope of the project also includes all ceiling repair work that will be impacted by the installation of the new lighting system.</p> <p>Installing the LED lights will positively impact our Energy Management System. The LED lights will have energy savings of up to 60% in operational electrical costs and will provide quality light fixtures. The LED lights burn cool which reduces the load on the air conditioning system which in turn will make the A/C system more efficient. LED lights have a life expectancy of 5 to 6 times longer than the fluorescent bulbs used in the existing lights. This will also save our maintenance department time and money since the service life of LED lights is much longer.</p>	\$894,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
23	Mount Rainier ES Cooling Tower Replacement	<p>The 38,092 sq. ft. school building was constructed in 1977 with a 3,150 sq. ft. addition in 1990. This building is heated and cooled by a water source heat pump system and Baltimore Aircoil (BAC) cooling tower, which was installed in 1999 to remove the condenser heat from water source heat pumps. This 17 years old BAC cooling tower has now exceeded its life cycle, has developed numerous leaks and is not energy efficient. The building has generated multiple work orders and several malfunctions due to freeze up and control failures. This cooling tower is located on the roof above kitchen. The scope of this project includes replacement of the existing BAC cooling tower. The new cooling tower will be a Baltimore Aircoil (BAC), Evapco cooling tower or approved equal. The new tower will also be energy efficient and will have a stainless steel sump, Variable Frequency Drives (VFD's), and a basin heater designed to prevent freeze up during shutdown or standby conditions. The scope of the project also includes replacement of valves, dampers, sensors, actuators, safety controls, and any piece of building equipment that would affect the proper operation in this scope for replacement of BAC cooling tower. All new control work will be placed on the existing Insight Apogee Modular Equipment Controller (MEC).</p>	\$384,000
24	Dwight D. Eisenhower MS Chiller and Cooling Tower Replacement	<p>The 106,801 sq. ft. school building was constructed in 1969 with a 33,150 sq. ft. addition in 1974. The building is cooled by two chilled water plants. The original plant in the 1969 section of the building was replaced in 2009. The 27 year old chiller plant in the 1974 addition was replaced in 1989 and has reached the end of its life cycle. The 1989 chiller and 1997 cooling tower have experienced numerous breakdowns and have affected the comfort and learning environment for the students and staff. The 1989 chiller uses Freon #123, which is not EPA compliant. The scope of the project includes removal/replacement of the existing 1989 York water cool chiller, located in a mechanical room at the rear of the 1974 addition, and 1997 Evapco cooling tower, located in a brick fenced enclosure in the courtyard between the two buildings. The new chiller will be a Trane, Carrier, York, Daikin, or approved equal, and will have Direct Digital Controls (DDC) for stable and efficient operation. The units will be energy efficient, and contain EPA compliant refrigerant. The cooling tower will be Evapco, or Baltimore Aircoil (BAC) and will have Variable Frequency Drives (VFD) for efficiency. The scope of the project also includes the replacement of valves, dampers, sensors, actuators, and safety controls and any piece of building equipment that has a pneumatic control or sensor readings related to equipment that is in this scope for replacement. All new controls will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) control switch and placed on our existing Energy Management System that is a Tridium Server, version 4.0.</p>	\$958,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
25	<p>Tayac ES HVAC Equipment Upgrade including installation of new Hot Water Chilled Water System, Univent replacement, DDC Controls upgrade and Abatement in Crawl space</p>	<p>The 47,858 sq. ft. school building was built in 1955 with additions in 1956, 1962, 1972, and 2000. Existing HVAC system includes gas fired steam boilers feeding a 2-pipe system. Downstream unitary equipment includes unit ventilators, fin tube radiators and air handling units (AHUs). Cooling is provided by window units in heating only areas and by packaged rooftop units in the additions. All supply steam and condensate piping is within crawl space. The existing controls system is pneumatic. Existing ceiling finishes are typically suspended acoustical tiles. During the 2008 Assessment it was noted in the Asbestos Hazard Emergency Response Act (AHERA) Management Plan Report, that the school contains 13,500 square feet of asbestos containing fissured ceiling tile and 1,730 square feet of asbestos containing 2x4 masonry ceiling tile.</p> <p>The scope of work includes the replacement of existing dual fuel steam boilers with new dual fuel (oil and gas) hot water boilers. A new air cooled chiller will be installed to create a 4-pipe system. Brick chiller housing will be constructed in the rear of the building outside of the service shed. This area is adjacent to the crawl space entry, which will be ideal for routing new chilled water mains. Inside the building, 20 steam fired unit ventilators will be replaced in classrooms with new dual temp hydronic unit ventilators (preferred manufacturer: Mcquay). Air handling units that currently serve the kitchen and stage area in the multi-purpose room are currently connected to steam and will be replaced. The crawl space under the school will be fully abated and re-lit. All steam and condensate piping within the crawl space will be removed. A new 4-pipe system shall be installed within the crawl space. All associated electrical connections will also be new and installed to meet NEC and IEC requirements. The ceiling tile system will also be replaced.</p> <p>Additionally, the scope of work includes a controls upgrade to Direct Digital Controls (DDC). The existing pneumatic controls system will be replaced with Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hands Off Auto (HOA) and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Any remaining HVAC equipment with pneumatic controls shall be retrofitted to the new DDC system. Replacing the steam system will bring on-site uniformity to systemwide and alleviate loss of energy due to steam leaks. Controls upgrade will allow for more efficient monitoring and better energy management of HVAC systems.</p>	\$5,764,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
26	Spring Hill Lake ES Roof Replacement	<p>The 70,993 sq. ft. school building was built in 1966 with additions in 1969, 1978 and 1998. The 15,530 sq. ft. 1978 addition of the building was re-roofed in 2007 and is not included in the scope of this project. The existing roof on the 1966 and the 1969 sections of the building were replaced in 1993 and are approximately 25 years old. The smaller 1998 section is original and approximately 18 years old. The industry standard life of a roof is 20 years; therefore the roofs on the 1966 and 1969 sections have exceeded their life cycles and the smaller 1998 roof section is nearing the end of its life cycle. The 1993 and 1998 roofing section at this facility exhibits deficiencies commensurate with time in service including perimeter leaks/repairs of considerable travel, drain bowl and drain sump leaks, discernable soft spots in the field of the roofing, selective cold process repairs in the field of roofing and base flashing as well as evidence of ponding in front of gutters and drains. Several reactive repairs have been made at expansion joints, pitch pockets and equipment curbs.</p> <p>The scope of work includes demolition of existing built-up roofing and insulation, provision and installation of approximately 55,465 SF of new built-up roofing and insulation including slope improvement with new tapered insulation. This includes the roof on the original 1966 building (approximately 33,264 SF), 1969 addition (approximately 14,958 SF) and 1998 addition (approximately 7,243 SF). The scope of this project also includes replacing all drains and downspouts, expansion joints, and perimeter metal including drip cap and fascia.</p>	\$1,533,000

PROPOSED

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
27	<p>Arrowhead ES Mechanical Equipment Upgrade including Univent, and AHU Replacement and Pneumatic controls to DDC Conversion</p>	<p>The 44,193 sq. ft. school building was built in 1966 with a 15,730 sq. ft. addition in 1978. The heat in the building is provided by 2 steam boilers. The building is air-conditioned by window A/C units in most classrooms, by 1 packaged Roof Top Unit (RTU) conditioner in the main office, by 1 split 14 ton air conditioner that serves the 1978 Addition, and by 2- ceiling hung air handlers with steam heat only and no A/C to the gymnasium. The building's heating and air conditioning is controlled by a pneumatic system. There are 25 steam unit ventilators which serve the classrooms. A steam/condensate piping replacement project was completed for this school in 2014.</p> <p>The scope of this project includes removal of approximately 25, 1966 Trane Steam heat only Univent, and replace them with a packaged Univent with steam heat and A/C, manufactured by Trane, Mcquay/ Daikin, or Carrier. The existing window A/C power will be used for the new packaged Univent. New packaged Univent will be Direct Digital Controlled (DDC) for stable and efficient operation, and will have increased openings for new outside air requirements. The existing Univent have exceeded their life cycle and are experiencing numerous problems including steam leaks, pneumatic control issues, and have obsolete parts that are hard to procure for repairs. The scope also includes replacement of 15 original 1966 fin tube radiators & housing and one fan coil unit in the kitchen area with the same in kind.</p> <p>The scope of the project also includes replacement of 4 Air Handling Units (AHUs)(1 for the multi-purpose room, 2 for gymnasium and 1 serving the 1978 addition of the building). The existing multi-purpose room AHU has steam heat which has had numerous steam leaks and does not meet new outside air requirements. The existing AHU has exceeded its life cycle. The new AHU will have air conditioning with an Economizer for approximately 20 tons of cooling, DDC for stable and efficient operation, and will meet new outside air requirements. The existing window A/C units will also be removed. The 2 AHUs serving the gymnasium area have also exceeded their life cycle, are heat only, pneumatically controlled and do not meet new outside air requirements. The new AHUs will have DDC controls for stable and efficient operation, meet new outside air requirements, and will have air conditioning (approximately 30 tons of cooling)with an economizer for efficient operation.</p> <p>The AHU that serves the 1978 addition of the building is a steam heating/direct expansion (DX)for cooling unit (15 tons). The condenser for air conditioning is located on the roof above the AHU. This AHU and condensing unit have exceeded their life cycle, are pneumatically controlled, contain Freon R-22 which is not EPA compliant, and do not meet current outside air requirements. The new AHU and condensing unit will be DDC controlled for stable and efficient operation, contain Freon R 410A which is EPA compliant, and meet new outside air requirements. All new control work will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) and placed on our existing Energy Management System that is a Tridium Server, version 4.0.</p>	<p>\$1,916,250</p>

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
28	<p>Paint Branch ES Mechanical Equipment Upgrade including 1962 Hot Water Piping and Two AHUs Replacement, hot water supply/return piping replacement at Gymnasium and Pneumatic controls to DDC Conversion</p>	<p>The 59,021 sq. ft. school building was constructed in 1972. The school is heated by two hot water boilers and two hot water circulating pumps which circulate the hot water to the Air Handling Units (AHUs), convectors, and fan coil units. The under the slab circulation piping in the gymnasium area has deteriorated and must be rerouted above ground inside the gymnasium along the East side wall. The two AHUs serving the gymnasium area have also exceeded their life cycle and have had several freeze ups due to the piping issues.</p> <p>The scope of the project includes replacement of existing under slab hot water piping to above ground piping in the gymnasium area only and the two AHUs for the Gym. The old piping will be abandoned in place and capped. All new above ground piping will be insulated. New AHUs will also have increased outside air openings for new fresh air requirements. The scope of the project also includes controls replacement of the existing pneumatic controls that are related to cooling to AHU replacement. The scope also includes the replacement of valves, dampers, sensors, actuators, and safety controls, any piece of building equipment that has a pneumatic control and converted to Direct Digitally Controlled (DDC) switch and placed on the existing Johnson Control Network Control Engine (NCE). All points, sensor, and controls must be tested for proper operation and energy efficiency and brought back to our Metasys Server.</p>	\$384,000
29	<p>Phyllis E Williams HVAC Unitary Replacement and Controls Upgrade including 9 AHUs, 4 RTUs, VAV Boxes throughout and DDC Controls upgrade</p>	<p>The 60,270 sq. ft. building was constructed in 1976 with a 4,181 sq. ft. addition in 1994. The existing mechanical system core consists of an air cooled chiller and two gas-fired hot water boilers feeding nine downstream Air Handling Units (AHUs) located in the penthouses. Each individual classroom/zone is locally served by a Variable Air Volume (VAV) terminal box. Exterior zones in classrooms are served by ceiling mounted fan coil units. The addition is served by four gas-fired Roof Top Units (RTUs). The control systems in the building are pneumatic and are not centrally controlled.</p> <p>The scope for this project includes replacing nine existing hydronic AHUs, four gas fired RTUs, all VAV terminal boxes and upgrade the existing pneumatic controls to Direct Digital Controls (DDC). The AHUs, RTUs and VAV boxes have exceeded their life cycle and are experiencing frequent break downs. The existing VAV boxes are not capable of having the existing controls retrofitted to DDC and shall be replaced with new like-in-kind units that will be compatible with the new controls system. The existing pneumatic control system shall be replaced with fully open Tridium/Niagara AX System. All new equipment will have a rib relay with HOA and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Any remaining hydronic HVAC equipment shall have pneumatic controls retrofitted to be connected to the new DDC system.</p>	\$6,966,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
30	<p>Central HS HVAC Modernization including removal of Steam System, installation of new dual temp system, RTU, AHU, Univent, Fin Tube Radiator and Fan Coil Unit replacement, Mechanical Room and Penthouse Abatement, DDC Controls upgrade</p>	<p>The original school building was constructed in 1961 with additions in 1963 and 1982. Existing mechanical system core is composed of two dual fuel (natural gas/oil) steam boilers with heat exchangers that produce hot water. Downstream equipment includes unit ventilators, Air Handling Units (AHUs), Roof Top Units (RTUs), Convectors, Fin Tube Radiators and Fan Coil Units. All AHUs and equipment in building quadrants C, E, and the east portion of quadrant D are currently supplied by hot water from heat exchangers. Units in remaining areas are supplied directly by steam. Five Direct Expansion (DX) cooling multizone RTUs supply the school (RTU-5 supplying media center has heating supplied by steam). Additionally, a hydronic AHU intended to serve the kitchen is currently installed on the roof, but not powered up. The scope of this project includes replacing the existing steam system, and redesigning complete mechanical and electrical systems (including load calculations). Steam boilers associated electrical connections and all components (including hot water heat exchangers, expansion tanks, etc.) will be removed. All mechanical rooms will be fully abated of all asbestos materials. Two new dual fuel (natural gas/oil) hot water boilers will be installed along with all associated components (including pumps, etc.). New electrical connections and emergency disconnects will be provided. New hot water piping shall be connected to existing hot water mains and new piping will be installed throughout school to areas currently not served by hot water. Existing downstream units (Unit Ventilators, Convectors, Fin Tube Radiators, AHUs, and RTU-5) currently served by steam will be replaced with new dual temp hydronic units. RTU-5 is a multi-zone unit with a steam heating coil. The unit itself has exceeded it's life cycle and cannot be retrofitted with a new hydronic heating coil. This unit will be replaced with a new Variable Air Volume (VAV) system, including new VAV terminal boxes. Existing ductwork associated with this unit will be reused, if applicable. Existing hydronic single temp unit ventilators will be replaced with new dual temp units. Additionally, AHU-3 intended to serve the kitchen has also exceeded it's life cycle and will be refurbished and powered up for use (electrical heavy-up may be required). A new chiller will be installed to supply all dual temp units with the exception of DX rooftop units. Chiller capacity will be equipped for future expansion, including all building AHUs upon future replacement. New chilled water piping mains will run concurrent to existing locations of all hot water piping.</p> <p>The existing pneumatic control system will be replaced with Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Any remaining hydronic HVAC equipment will have pneumatic controls retrofitted to be connected to the new DDC system. Replacing the steam system will bring uniformity to systems site wide and alleviate loss of energy due to steam leaks. Controls upgrade will allow for more efficient monitoring and management of HVAC systems.</p>	\$20,218,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
31	Andrew Jackson MS HVAC Equipment Upgrade including Replacement of Hot and Chilled Water Piping, Cooling Tower, Steam System and 14 AHUs, Mechanical Room and Penthouse Abatement, DDC Controls upgrade	<p>The 151,163 sq. ft. school building was built in 1971. Existing HVAC system consists of two dual fuel (oil/gas) steam boilers and a water cooled chiller/cooling tower connected to two 2-pipe systems. Downstream unitary equipment includes unit ventilators and Air Handling Units (AHUs). The controls in the building are pneumatic and are not centrally controlled by an energy management system.</p> <p>The scope of this project includes removing the existing steam system (boilers and all associated components including heat exchangers, existing circulation pumps, etc.). The existing piping for the steam system will be removed (including any abatement as required). The scope of this project also includes installing new dual fuel (natural gas/oil) hot water boilers, new cooling tower and replace 14 AHUs (AHU-1 thru AHU-14) with 4-pipe dual temperature type. The cooling tower in the building has exceeded its life cycle, is rusted and leaks during use. The existing 2-pipe hydronic system has leaks and rotting insulation and will be replaced in its entirety. Existing pneumatic controls will be replaced with new Direct Digital Controls (DDC). All mechanical rooms will be abated (floor tiles and HVAC insulation). New electrical connections and emergency disconnects will also be provided for major equipment.</p> <p>Existing pneumatic controls system shall be replaced with Fully Open Tridium/Niagara AX System. All new equipment will have a relay with HOA and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Any remaining HVAC equipment will be retrofitted to new controls system. Replacing the steam system will alleviate loss of energy due to steam leaks. A new 4-pipe system would allow for heating and cooling year round. Controls upgrade will allow for more efficient monitoring and management of HVAC systems.</p>	\$17,641,000
32	Annapolis Road Academy Exterior Windows Replacement	<p>The original school building was built in 1939 with additions in 1953, 1967 and 1995. The existing windows installed in 1939 are located in the historical part of the building are fixed steel units with operable hoppers. These windows are 77 years old and have exceeded their life cycle and are causing repeated work orders and safety concerns. The windows are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes removal and replacement of all existing windows throughout the entire 1939 portion of the building. The work consists of demolishing existing window system, removal of all related debris, and installation of 74 commercial grade aluminum fixed insulated window units with operable hoppers including mullions inside glass. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p>	\$255,000

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
33	Beltsville Academy Roof Replacement	<p>The 95,285 sq. ft. school building was built in 1961 with a 15,312 sq. ft. addition in 1964. The existing roof on this building was replaced in 1991 and is approximately 25 years old. The industry standard life of a roof is 20 years; therefore this roof has exceeded the industry standard life and has reached the end of its life cycle. The existing roofing at this facility exhibits deficiencies commensurate with time in service including perimeter leaks/repairs of considerable travel, drain bowl and drain sump leaks, discernable soft spots in the field of the roofing, selective cold process repairs in the field of roofing and base flashing as well as evidence of ponding in front of gutters and drains. Several reactive repairs have been made at expansion joints, pitch pockets and equipment curbs.</p> <p>The scope of work includes demolition of existing built-up roofing and insulation, provision and installation of approximately 84,169 gross sq. ft. of new built-up roofing and insulation including slope improvement with new tapered insulation. This includes the original building and 1964 addition. The metal roofing at an attached outside storage room (approximately 173 gross sq. ft.) will also be replaced with new standing seam roofing. The scope of this project also includes replacing all drains gutters and downspouts, expansion joints, perimeter metal including drip cap and fascia. Large soffit and fascia areas at the Music Wing will also be replaced as a part of this project.</p>	\$2,453,000

PROPOSED

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
34	Fort Foote ES Windows and Doors Replacement	<p>The original school building was built in 1960 with additions in 1961 and 1968. The existing single hung steel windows and hollow metal steel doors are the original, installed in 1960, are 56 years old and have exceeded their service life causing repeated work orders and safety concerns. The windows and doors are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies. The scope of this project includes removal and replacement of all existing windows and doors throughout the entire building. The work consists of demolishing existing window system and removal of all related debris and installation of commercial grade aluminum single hung insulated units including new flashing and metal cladding of exposed surfaces. The scope of the project also includes demolishing existing doors, jambs, removal of all related debris and installation of new commercial grade hollow metal doors and jambs. The scope also includes repairing disturbed openings including interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>The existing window unit air conditioners will be removed during this windows and doors replacement project. The FY 18 CIP also includes a packaged univent replacement project (State Priority # 35) for this school. Both of these projects will be done concurrently. A total of 200 windows, 13 single doors and 8 double doors will be replaced as a result of this project</p>	\$1,278,000

PROPOSED

Project Description and Justification

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	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
35	Fort Foote ES Packaged Univent Replacement	<p>The original school building was built in 1960 with additions in 1961 and 1968. The school building has steam heat provided by 2 steam boilers and the air-conditioning by window unit air conditioners for most classrooms, and a Roof Top Unit (RTU) for the library. The heating and air conditioning in the building is currently controlled by a pneumatic system. There are approximately 26 steam Unit Ventilators, which serve the classrooms. Hallways and closets have the original fin tube radiator cabinets. The existing Univent have exceeded their life cycle and are experiencing numerous problems including steam leaks, pneumatic control issues, and have obsolete parts that are hard to procure for repairs. The fresh air dampers no the Univent do not work anymore. A majority of the radiators have been shut off due to the excessive amount of leaking coils causing condensation from steam leaks. A complete steam/condensate piping replacement project for the school was completed in 2014.</p> <p>The scope of this project includes replacing 26 Trane and Nesbit Steam heat only Univent with self-contained Unit Ventilator with steam heat and DX cooling. Preferred manufactures are Trane, Mcquay/ Daikin, or Carrier. The scope also includes replacing 18 original fin tube radiators and housing cabinets with new fin tube radiators and housing. In the front office area of the building there are 6 fin tube radiators with enclosures. These 6 fin tube radiators (out of the total 18) will be replaced with 6 thru wall self-contained unit ventilators with steam heat coil and DX cooling. In the teacher's lounge and the resource room, the 3 fin tube radiators (out of the total 18) and enclosures, will also be replaced with 3 thru wall self-Contained unit ventilators with steam heat coil and DX cooling. The existing window A/C power will be used for the new Packaged Univent. New Packaged Univent and Radiators will be Direct Digital Controlled (DDC) for stable and efficient operation, and will have increased outside air openings for new Fresh air requirements. All new control work will be a fully open Tridium/Niagara AX system. All new equipment will have a Rib Relay with Hand Off Auto (HOA) and will be placed on our existing Energy Management System that is a Tridium Server version 4.0. The existing window unit air conditioners will be removed during another FY 2018 exterior windows and doors replacement project (State priority # 34). This project will be combined and executed with the windows and doors replacement project.</p>	\$1,431,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
36	Glassmanor ES Exterior Windows, Window Walls and Storefront Replacement	<p>The original school building was built in 1960 with additions in 1965, 1969 and 1994. The existing exterior window walls, storefront windows and doors, are the originals, installed in 1960, 1965, 1969 and 1994 respectively, and are steel casement windows with aggregate panels. The window walls and storefronts at the facility are 22-56 years old and have exceeded their service life causing repeated work orders and safety concerns. The window walls and storefronts are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes total removal and replacement of all existing exterior windows, storefronts and window walls throughout the entire building. The work consists of demolishing existing window system, removal of all related debris, and installation in 42 openings of commercial grade aluminum single hung insulated window units and 2 window walls with insulated panels including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>The existing store fronts include hollow metal doors with steel jambs with fixed and operable steel windows. The scope of this project includes total removal and replacement of all existing storefronts throughout the entire building. The work consists of demolishing existing storefronts, removal of all related debris, and installation in 9 openings of commercial grade aluminum doors with half glass/half aluminum panels, full rot on hinges, fixed and operable insulated units, commercial grade aluminum insulated panels and related hardware including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction. This project will be combined and executed with the FY 18 CIP central HVAC conversion project for this school (State priority # 37).</p>	\$1,303,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
37	Glassmanor ES Central HVAC Conversion	<p>The original school building was built in 1960 with additions in 1965, 1969 and 1994. The school building is currently heated by 2- Steam boilers. The heating and ventilation to the classrooms is provided by Trane Unit Ventilators, and Cooling by window air conditioners. Multipurpose room is heated and cooled by 2- packaged gas air conditioning Roof Top Units (RTUs), replaced in 2014. The 1994 addition of the building has 5- packaged gas air conditioning RTUs, which serve the classrooms. The teachers' lounge and nurse's office have steam fin tube radiation. The building supervisor's office and hallway are heated by ceiling mounted steam Fan Coil Units. The steam supply and condensate piping has exceeded their life cycle and deteriorated to a point where the steam system has become energy inefficient and is expensive to maintain due to pipe failures.</p> <p>The scope of this project includes conversion of the entire building's steam and condensate piping to a hot water plant excluding the multi-purpose room. This will include replacing the 2- steam boilers to hot water boilers, removal of all steam supply/condensate piping and condensate tanks, and replacing them with hot/chill water piping, and installation of an air cooled chiller (capacity of air cooled chiller to be confirmed by block load calculations). The scope also includes replacement of approximately 18 steam heated unit ventilators with dual temperature unit ventilators and replacement of approximately 8- steam convactor units to hot water convectors. In the teachers' lounge and nurse's office the steam fin tube radiators will be replaced with 2- dual temperature unit ventilators. The building supervisor's office and hallways ceiling hung steam Fan Coil Units, will be replaced with 2- dual temperature ceiling mounted Fan Coil Units. The network closet located across from the office has servers for internet operations but do not have ventilation or cooling. A mini split air conditioner, with low ambient control, for the cooling of the servers and a small roof mounted exhaust fan for ventilation will be installed in the network closet. This area will require a load calculation for the cooling of the network equipment. The building is pneumatically controlled and will require all pneumatic controls to be upgraded to Direct Digital Controls (DDC) for all Unit Ventilators, Convectors, for efficient and stable operation and will be tied into our energy management system Tridium Server, version 4. This project will be combined and executed with the FY 18 CIP exterior window walls and storefront replacement project for this school (State priority # 36).</p>	\$2,172,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
38	James Madison MS Replacement of Existing Lighting with LED Lighting in Gymnasium	<p>The 129,348 sq. ft. school building was built in 1972. The school gymnasium currently has fluorescent lighting that was installed during the construction of the original building. The current lighting system is 44 years old, has exceeded its service life and is not energy efficient.</p> <p>The scope of this project includes replacing all existing gymnasium fluorescent lighting with new LED lighting. The existing lights are to be disposed of in accordance with industry guidelines. The new LED lights will be specified to provide the same lumens rating as the existing lights. The light fixture manufacturer is to provide a ten (10) year warranty. The scope of the project also includes all ceiling repair work that will be impacted by the installation of the new lighting system.</p> <p>Installing the LED lights will positively impact our Energy Management System. The LED lights will have energy savings up to 60% in operational electrical costs and will provide quality light fixtures. The LED lights burn cool which reduces the load on the air conditioning system which in turn will make the A/C system more efficient. LED lights have a life expectancy of 5 to 6 times longer than the fluorescent bulbs used in the existing lights. This will also save our maintenance department time and money since the service life of LED lights is much longer.</p>	\$255,000
39	Langley Park McCormick ES Elevator Conveyance System Modification	<p>The two-story 26,822 sq. ft. school building was built in 1958 with a 37,372 sq. ft. addition in 1979. The two stop conveyance unit with relay logic controls was installed in 1979 manufactured by Otis Elevator Company and is the only elevator at this facility. The unit is approximately 37 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator has experienced several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and if located, the delivery time is not within a reasonable time frame. The elevator is located on the first floor, next to room 24.</p> <p>The scope of this project includes total replacement of the two stop unit will including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project items may also include painting the hoist way entrance opening that will be painted to match or replaced with new stainless steel. This unit does not have fire recall, which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The new replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$321,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
40	Largo HS Elevator Conveyance System Modification	<p>The two-story 181,327 sq. ft. school building was built in 1970 with a 58,175 sq. ft. addition in 1974. The two stop unit was installed in 1970 manufactured by General Elevator Company and has the original main controller, pump and associated wiring. The unit is approximately 46 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. Due to the difficulty of obtaining replacement parts, the elevator has experienced excessive down time while waiting for repairs to be completed that negatively impacts instructional time. The elevator is located on the first floor in administration 4 area next to room 152.</p> <p>The scope of this project includes total replacement of the two stop unit including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project may also include painting the hoist way entrance opening that will be painted to match or replaced with new stainless steel. This unit does not have fire recall, which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$323,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
41	Largo HS Exterior Window Walls, Storefronts and Classroom Windows Replacement	<p>The 181,327 sq. ft. school building was built in 1970 with a 58,175 sq. ft. addition in 1974. The existing exterior classroom windows, storefront windows and doors are the originals, installed in 1970 and 1974, and are steel single hung windows. The existing store fronts include hollow metal doors with steel jambs including fixed and operable steel windows. The windows and storefronts at the facility range from 42-46 years old and have exceeded their life cycle and are causing repeated work orders and safety concerns. The windows and storefronts are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes removal and replacement of all existing exterior classroom windows throughout the entire building. The work consists of demolishing existing window system, removal of all related debris, and installation of approximately 246 commercial grade aluminum single hung insulated window units including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>The scope of this project also includes total removal and replacement of all existing window walls and storefronts at the main entrance, courtyard and main hallways. The work consists of demolishing existing window walls and storefronts, removal of all related debris, and installation of 14 openings of commercial grade aluminum doors with half glass/half aluminum panels, full roton hinges, fixed and operable insulated units, commercial grade aluminum insulated panels and related hardware including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p>	\$894,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
42	Laurel HS Elevator Conveyance System Modification	<p>The two-story original school building was built in 1961 with additions in 1965, 1972, 1975, 1983, 2009 and 2010. The four stop unit (PG1540) was installed in 1973 manufactured by US Elevator Company and is one of the two elevators at this facility. This elevator has front and rear doors to access multiple tiers on the first and second floors. The unit is approximately 43 years old and has exceeded it's life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. Due to the difficulty obtaining replacement parts, we have experienced excessive down time while waiting for repairs to be completed that negatively impacts instructional time. From January 2015 to present aproximately 18 service calls were received for various issues that resulted in an interruption of service. The unit is the only unit on the East side of the building making it critical for staff, students and others who require access. The elevator on the first floor is located next to room 135.</p> <p>The scope of this project includes total replacement of the four stop unit including replacing the controller with all associated wiring, the hydraulic pump unit, motor and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, new slide guides, car position indicators and drawings. The new unit will have an updated fire service in accordance with the latest version of ASME/ANSI A17.1 code. All associated fire alarm devices will be maintained. The scope of the project may also include painting the hoist way entrance opening that will be painted to match or replaced with new stainless steel. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$309,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
43	Hyattsville ES Elevator Conveyance System Modification	<p>The two-story original school building was built in 1935 with additions in 1962 and 1979. The two stop unit with relay logic controls was installed in 1979 manufactured by Westinghouse Elevator Company and is the only elevator at this facility. The unit is approximately 37 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located on the first floor, next to the main office.</p> <p>The scope of this project includes total replacement of the “two stop” unit including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project may also include painting the hoist way entrance opening that will be painted to match or replaced with new stainless steel. This unit does not have fire recall, which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$318,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
44	<p>Maya Angelou French Immersion at Shugart-Gymnasium Renovation including Bleachers Replacement, painting, and Replacement of existing lighting with LED Lighting</p>	<p>The 100,018 sq. ft. school building was built in 1965. The existing interior bleachers are the original bleacher system installed in 1965, and are steel with wooden seating. These Bleachers are 51 years old and have exceeded their service life causing repeated work orders and safety concerns. The bleachers are not ADA compliant, do not have safety railings and are worn beyond repair and replacement. The parts for the bleacher system are obsolete and hard to procure. Also, the school gymnasium currently has fluorescent lighting that was installed during the construction of the original building. The current lighting system is 51 years old and has exceeded its service life. Also, this lighting system is not energy efficient.</p> <p>The scope of this project includes the replacement of the bleacher system located On the visitors' side of the Gymnasium. The scope of the project also includes installation of new Hussey Bleacher system on the visitor's side only, to match existing bleachers on home team side. The new bleacher system will include; ADA seating spaces, intermediate aisle steps, store in place aisle rails and a manual system.</p> <p>The scope of this project also includes interior painting of the Gymnasium. The painting will include preparation of all surfaces to be painted including scraping, patching, caulking and cleaning prior to painting. The recommended supplier is McCormick Paints brand REVO.</p> <p>Also, included in the scope is replacement of all existing gymnasium fluorescent lighting with new LED lighting. The existing lights are to be disposed of in accordance with industry guidelines. The new LED lights will be specified to provide the same lumens rating as the existing lights. The light fixture manufacturer is to provide a ten (10) year warranty. The scope of the project also includes all ceiling repair work that will be impacted by the installation of the new lighting system.</p> <p>Installing the LED lights will positively impact our Energy Management System. The LED lights will have energy savings up to 60% in operational electrical costs by energy savings and will provide quality light fixtures. The LED lights burn cool which reduces the load on the air conditioning system which in turn will make the A/C system more efficient. LED lights have a life expectancy of 5 to 6 times longer than the fluorescent bulbs used in the existing lights. This will also save our maintenance department time and money since the service life of LED lights is much longer.</p>	\$530,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
45	<p>Nicholas Orem MS All Exterior Storefronts with Doors and all exterior Windows Replacement, Curtain Wall System including the Tech Fab Panels and Windows Replacement at Gymnasium and Courtyard</p>	<p>The original school building was built in 1962 with additions in 1991 and 1993. The existing exterior windows, tech fab panels, storefront windows and doors are the originals, installed in 1962, 1991 and 1993 respectively, and are steel single hung windows. The existing store fronts include hollow metal doors with steel jambs including fixed and operable steel windows. The windows and storefronts at the facility are 23-54 years old and have exceeded their service life causing repeated work orders and safety concerns. The windows and storefronts are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes removal and replacement of all existing exterior windows, storefronts with doors throughout the entire 1962 building and curtain wall system at gym and courtyard including the tech fab panels (119) and windows. The work consists of demolishing existing window system, removal of all related debris and installation of approximately 320 commercial grade aluminum single hung insulated window units with commercial grade insulated panels including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>The scope of this project also includes total removal and replacement of 2 existing storefront entrances in the building. The scope of this project also includes demolishing existing storefronts, removal of all related debris, and installation of approximately 45 commercial grade aluminum doors with half glass/half aluminum panels, full roton hinges, fixed and operable insulated units, commercial grade aluminum insulated panels and related hardware including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction. This project will be combined and executed with the FY 18 CIP packaged univent replacement project for this school (State priority # 46).</p>	\$3,832,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
46	Nicholas Orem MS Packaged Univent Replacement	<p>The original school building was built in 1962 with additions in 1991 and 1993. The heating in the building is provided by 2- steam boilers and air conditioning by window air conditioners for most classrooms, and by an Air Handler Unit (AHU) with DX cooling for the main office. Both heating and air conditioning are controlled by a pneumatic system. There are approximately 40 steam Unit ventilators, which serve the classrooms. The existing Univent have exceeded their life cycle and have numerous problems including steam leaks, and issues with the pneumatic control system. Also, the replacement parts are hard to obtain which delay the repair process.</p> <p>The scope of this project includes removing approximately 40, 1962 Herman Nelson steam heat only Univent, and replacing them with self-contained Unit Ventilator with steam heat and DX cooling, manufactured by Trane, Mcquay/ Daikin, or Carrier. The existing window A/C power will be used for the new packaged Univent. New packaged Univent will be Direct Digital Controlled (DDC) for stable and efficient operation and will meet new fresh air requirements. All new control work will be a Fully Open Tridium/Niagara AX System. All new equipment will have a Rib Relay with Hand Off Auto (HOA) and will be placed on our existing Energy Management System that is a Tridium Server, version 4.0. The central HVAC project will be combined and executed with the FY 18 CIP exterior doors and windows replacement project for this school (State priority # 45).</p>	\$1,533,000
47	Riverdale ES Exterior Windows with Transom Panels, Storefronts with Doors, Single Hung Doors with Transoms and Double Doors with Transoms Replacement	<p>The 64,800 sq. ft. school building was built in 1978. The existing exterior windows, storefront windows and doors are the originals, installed in 1978 and are steel single hung windows. The existing store fronts include hollow metal doors with steel jambs including fixed and operable steel windows. The windows and storefronts are 38 years old and have exceeded their service life causing repeated work orders and safety concerns. The windows and storefronts are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes removal and replacement of all exterior windows. The work consists of demolishing existing window system, removal of all related debris, and installation of commercial grade aluminum single hung insulated units with commercial grade transom panels including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>The scope of this project also includes total removal and replacement of all storefronts. The work consists of demolishing existing storefronts, removal of all related debris, and installation of commercial grade aluminum doors with half glass/half aluminum panels, full roton hinges, fixed and operable insulated units, commercial grade aluminum transom panels and related hardware including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p> <p>A total of 3 doorways, 42 windows and 5 storefronts including doors will be replaced as a result of this project.</p>	\$1,022,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
48	Chillum ES Elevator Conveyance System Modification	<p>The two-story school building was built in 1952 with additions in 1955, 1969 and 1978. The two stop unit with relay logic controls was installed in 1978 manufactured by US Elevator Company. The elevator is approximately 38 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located next to the teacher's lounge on the first floor.</p> <p>The scope of this project includes replacement of two stop elevator including replacing the controller with all associated wiring, hydraulic pump unit with all associated valves, lines and fittings, jack assembly, cab interior including new wall panels, ceilings, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all travelling cables, cab flooring (VCT type), door scans, door operators, interlocks and tracks, new signage (ADA), inspection station, pit ladder, buffer springs, clutch track & gate switch, slide guides, car position indicators and drawings.</p> <p>The scope of the project also includes painting the hoist way entrance opening to match or replace it with new stainless steel. This unit does not have fire recall, which may need to be updated. The existing shaft and pit of the elevator will remain the same and the new equipment will be replaced in kind. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$317,000

PROPOSED

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
49	<p>Robert Goddard Montessori HVAC Upgrade including Steam Piping, Univent, Fin Tube Radiators, Boilers, Chillers, Cooling Tower Replacement, and DDC Controls Upgrade</p>	<p>The 106,701 sq. ft. school building was built in 1964 with a 26,930 sq. ft. addition in 1966. Existing mechanical system core is composed of two gas fired steam boilers and a chiller. A heat exchanger produces hot water from steam and is fed to equipment in various locations. The addition is served by rooftop units. Downstream unitary equipment serving the main building include unit ventilators in classrooms and offices supplied by Air Handling Units (AHUs) in the penthouse (steam and chilled water). Fin Tube Radiators in various locations are supplied by hot water. All supply steam and condensate piping mains are under slab. Existing chilled water lines are installed in plenum space.</p> <p>The scope of this project includes replacing the existing steam system including boilers, heat exchangers, piping, and electrical connections. Asbestos abatement will be done as necessary. Additionally, the unit ventilators in classrooms will be replaced with new 4-pipe dual fuel unit ventilators, and steam boilers with new hot water type boilers. The existing chiller and cooling tower will be replaced with larger models to serve the entire building (current model: Carrier 30HXCSCM74) and 100 ton cooling tower (current model: Evapco AT 8-66B). The current location of the chiller may not be big enough for the new chiller. An option could be to install boilers with smaller footprint to accommodate a larger chiller in the main boiler room floor. Four (4) AHUs currently connected to steam system will also be replaced. Fin Tube Radiators in locker room area will also be replaced. Steam convectors will be replaced as required with new hydronic type convectors. Existing under slab steam and condensate piping will be drained down, capped off above grade and abandoned in place. Penthouse will be fully abated and AHU-1, 2 and 3 will be replaced. Additionally, ceiling hung AHU across from the gymnasium will also be replaced (minimal abatement of insulation required). All associated electrical connections and disconnects to major equipment will also be replaced and installed to meet NEC and IEC requirements. Asbestos abatement will be done for all above ceiling hydronic piping (insulation). Former science/art classrooms have window fans that will be removed. Existing hydronic Fin Tube Radiators in locker room area are falling apart and will be replaced. All steam convectors will also be replaced with hydronic type convectors.</p> <p>The existing pneumatic controls system will be replaced with a new centrally controlled Direct Digital Control (DDC) system. The new system will be a Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Replacing the steam system will alleviate loss of energy due to steam leaks. A new 4-pipe system would allow for heating and cooling year round. Controls upgrade will allow for more efficient monitoring and management of HVAC systems.</p>	<p>\$16,047,000</p>

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
50	Woodridge ES Limited HVAC Upgrade including Replacement and modification of RTUs, Installation of VAV Boxes, AHU, Cabinet Unit Heater and Convactor Replacement	<p>The original school building was built in 1954 with additions in 1963, 1979 and 1994. Mechanical systems serving the building include two steam boilers feeding a 2-pipe system. Downstream equipment includes Steam Heating Coils, Air Handling Units (AHUs), Electric and Steam Cabinet Unit Heaters (steam in kitchen), Convectors and Classroom Unit Ventilators. Additional equipment in the school includes packaged Roof Top Units (RTUs) in the entire building.</p> <p>The scope of this project includes abandoning the existing steam system in place (including all piping and unit ventilators). The outside air openings in the back of unit ventilators shall be sealed off, demolishing duct mounted steam heating coils, convectors, kitchen cabinet unit heater and multi-purpose room air handlers. Abatement will be done for piping insulation. The scope of the project also includes replacing all Convectors with electric type thru-wall Convectors throughout the school. The kitchen cabinet unit heater will be replaced with an electric ceiling mounted type unit heater. The AHUs in the multi-purpose room will be replaced with ceiling mounted AHUs with a direct expansion cooling coil (connect to existing condensers on roof) and electric heat. RTU-6 and RTU-7 currently are not equipped for fresh air input. These units will be modified to add an economizer. RTU-2, 3 and 4 are multi-zone units. These units will be replaced with new VAV type RTUs and variable air volume boxes will be installed downstream as required to maintain current zoning.</p> <p>Additionally, the existing pneumatic control system will be replaced with Fully Open Tridium/Niagara AX System. All new equipment will have a rib relay with Hand Off Auto (HOA) and placed on our existing Energy Management System that is a Tridium Server, version 4.0. Replacing the steam system will alleviate loss of energy due to steam leaks. A new 4-pipe system would allow for heating and cooling year round. Controls upgrade will allow for more efficient monitoring and management of HVAC systems.</p>	\$1,713,000
51	Walker Mill MS Elevator Conveyance System Modification	<p>The two-story 129,348 sq. ft. school building was built in 1970. The two stop unit with relay logic controls manufactured by Doolan Elevator Company and is the only elevator at this facility. The unit is approximately 46 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located across from room 114 on the first floor.</p> <p>The scope of this project includes total replacement of the two stop unit including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project may also include painting the hoist way entrance opening to match or replace it with new stainless steel. This unit does not have fire recall, which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$323,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
52	Mount Rainier ES Elevator Conveyance System Modification	<p>The three-story 38,092 sq. ft. school building was built in 1977 with a 3,150 sq. ft. addition in 1990. The three stop unit with relay logic controls was installed in 1977 manufactured by Otis Elevator Company and is the only elevator at this facility. The unit is approximately 39 years old and has exceeded its life cycle (The industry standard life cycle of an elevator is approximately 20 years). The elevator is experiencing several breakdowns with an increased number of service calls due to its usage and age. Additionally, the replacement parts are obsolete, overpriced, hard to locate and when located, the delivery time is not within a reasonable time frame. The elevator is located in the main lobby, next to the cafeteria.</p> <p>The scope of this project includes total replacement of the two stop unit including replacing the controller with all associated wiring, the hydraulic pump unit and associated valves, lines and fittings, the jack assembly, cab interior including new wall panels, ceiling, lighting and the control panel, hoist way doors, new hallway call assembly including hall indicator lights, all traveling cables, new cab flooring (VCT typ.), door scans and door operator, interlocks and tracks, new signage (ADA), inspection station, pit ladder, new buffer springs, clutch track and gate switch, new slide guides, car position indicators and drawings. The scope of the project may also include painting the hoist way entrance opening to match or replace with new stainless steel. This unit does not have fire recall, which may need to be updated. The new equipment will be replaced in kind and the existing shaft size and location will remain as is. The replacement elevator and components will provide an ADA safe, more reliable and modern system for the students, staff and community.</p>	\$318,000
53	Andrew Jackson MS Exterior Windows Replacement	<p>The 151,163 sq. ft. school building was built in 1971. The existing exterior single hung steel windows installed in 1971 are 45 years old. These windows have exceeded their service life causing repeated work orders and safety concerns. The windows are leaking, have severe deterioration and rust around the frames resulting in energy inefficiencies.</p> <p>The scope of this project includes removal and replacement of all exterior windows throughout the building. The work consists of demolishing existing window system, removal of all related debris, and installation of 85 commercial grade aluminum single hung insulated window units including new flashing and metal cladding of exposed surfaces. The scope of this project also includes repairing disturbed openings including; interior spackling, painting, acoustical ceiling, exterior tuck-point and brick replacement affected by new construction.</p>	\$639,000
County Funded Projects			
	PROJECT	DESCRIPTION	FUNDING REQUEST
Compliance Mandate Projects			
	Asbestos Ceiling Tile Replacement	<p>This project provides funding for the abatement and replacement of all asbestos ceiling tiles throughout the school system. New ceiling tiles will improve the learning environment of the schools and help prevent any potential incidents involving asbestos exposure. New tiles will also make a large improvement in the schools appearance. Many of the existing tiles that contain asbestos are stained from age or roof leaks and cannot be replaced piece meal.</p>	\$1,570,000

Project Description and Justification

October 5, 2016

PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
American with Disabilities Act (ADA) Projects	This project category will request funding to address ADA improvements at all school buildings. In May 2008, the updated Facility Assessment Study of 184 existing school facilities was completed. The current needed repairs total \$2.12B, of which \$31.7M was analyzed as ADA improvements that are required. As we proceed to the next phase, each school will be prioritized based on the FCI, and would be included in the prioritized ADA list of projects. The ADA was signed into law to provide greater accessibility to physically-challenged Americans by updating existing buildings and ensuring that all new buildings provide barrier-free access. Failure to address the deficiencies in our school buildings imposes hardships on users with disabilities and opens the possibility of litigation. All Prince George's County Public Schools were originally built to comply with the codes and building standards in effect at the time of design and construction. Annual inspections of our facilities continue to identify life safety conditions that fail to meet present codes. To meet this need, County funds have been requested on an annual basis. A six year capital plan is proposed to address the ADA findings in the updated Facility Assessment Study.	\$1,500,000
Buried Fuel Tank (Underground Storage Tanks) Replacement	This project provides funding for replacing buried heating and minor fuel tanks that are leaking or have deteriorated past the point of repair. All buried tanks over 15 years old will need to be replaced. Replacement tanks will be made of corrosion-resistant materials, and will be installed with monitoring wells and other safeguards designed to meet environmental and safety standards. Funding will be used for tank testing, mandatory upgrades, tank replacements, site remediation, cathodic protection, and temporary procurement. There are currently 263 operational buried fuel tanks on property owned by the Prince George's County Public Schools. Of these, approximately 130 are 20 or more years old. A number of the tanks tested to date have shown evidence of leaks indicating the need for replacement. The cost of such replacements is approximately \$100,000 per tank.	\$2,600,000
Lead Remediation Projects	This project provides funds to remediate possible lead from drinking water and to meet EPA standards. All code requirements were met at the time the schools were built, however EPA codes have continued to be upgraded.	\$200,000
Fire Alarm, Fire Hydrants – Code Corrections	This project consists of updating a number of existing school buildings to meet current County, State and Federal building codes. Top priority will be given to the fire hydrant line extensions and the remaining funding will be used for other pending high-priority needs. All code requirements were met at the time the schools were built; however, codes have continued to be upgraded. New fire, health, safety and handicap codes require alterations to correct deficiencies noted in annual inspections by the regulating agencies.	\$6,054,000
CFC Control and A/C Modernization	This project provides funding to retrofit or replace aging air-conditioning equipment with the goal of eliminating the use of CFC-based refrigerants by the year 2008. Immediate action will be taken to reduce the release of CFC compounds by installing high efficiency purge pumps on large central chillers. Central chillers will be evaluated on a case-by-case basis to determine whether conversion, renovation, or replacement, is most appropriate. In addition to the central chillers, the project will include rooftop units, absorption systems and cooling towers. Many of the large central chillers in our schools have exceeded recommended maintenance of effort. The designed lifetime for the rooftop air-conditioning equipment is approximately 15 to 20 years, and most of the rooftop units have already outlived their life expectancy.	\$300,000

Project Description and Justification

October 5, 2016

PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
Other County-Wide Projects		
Air Condition Upgrades (in major projects)	This project category will request funding to complete air-conditioning in classrooms, multi-purpose rooms, and other instructional rooms in elementary, middle, and high schools, as well as other instructional facilities. There remains a need to complete air-conditioning in several other instructional rooms in elementary, middle, and high schools, as well as other instructional facilities.	\$21,632,403
Central Garage/ Transportation Dept. Improvements	This project seeks to improve bus and vehicle service areas at several locations. A feasibility study will be conducted to develop a phased program to improve working conditions at these facilities, enhance worker productivity, and to provide safer working conditions. Fully-enclosed service sheds will be provided at several bus lots. There is a critical need to provide the bus lot mechanics with workspace that affords protection from the elements. These work stations will eliminate the need to transfer buses from bus lots to one of the three garages for repairs.	\$2,000,000
Kitchen and Food Services	This project includes short-term and long-term capital improvements to the food service facilities and equipment. This project would allow the Department of Food and Nutrition Services to design a best use plan for new or renovated kitchens, and to develop new and efficient delivery systems to achieve maximum output within a minimum amount of space using minimum amount of labor.	\$3,000,000
Land and Building Acquisition	This project provides funding to purchase land and buildings for new schools.	\$8,000,000
Major Emergency Repairs	This project provides funding for the repair and replacement of track surfaces, bleachers, lockers, boilers, HVAC/electrical systems, elevators, energy projects, environmental issues, repaving, painting, roof/structural systems, emergency repairs, and expense associated with meeting federally-mandated regulations. The average of the school buildings is approximately 40 years and the support systems have exceeded their life expectancy. Consequently, there has been a marked increase in mechanical, electrical and structural component failures. The cost of either planned replacements or emergency repairs, for such items far exceed provisions in the annual maintenance operating budget.	\$22,883,000
Parking Lots/ Driveways	This project provides funding for additional entrance/exit drives, vehicle turnarounds, bus awaiting areas, sidewalks, and parent drop-off/pick-up areas at various school sites to accommodate the increased volume of traffic and improve on-site safety. Most schools were built when a majority of students walked to school and driveways were designed to handle only staff and visitor parking with a limited number of school buses. With the increase in school bus traffic, and the number of parents transporting children to and from school, driveways often cannot handle the traffic volume. This situation has resulted in congestion during arrival and dismissal times.	\$17,510,000
Playground Equipment	This project provides funding to replace or provide new playground equipment. Many school facilities have playground equipment that has aged and is in need of repair or replacement	\$210,000

Project Description and Justification

October 5, 2016

	PROJECT	DESCRIPTION & JUSTIFICATION	FUNDING REQUEST
	Security Upgrades	This project will provide for a six year capital plan to provide a security camera infrastructure plan for the elementary, middle, high, and other school facilities in Prince George's County. Due to theft and vandalism, break-ins, student needs and overall security, the requested funding will provide the necessary equipment and infrastructure.	\$370,000
	State Planning Projects	This project provides the necessary funding to support capital projects that require both State construction funding and county funding to complete the design prior to the approval of State funds. Projects in this category include Open Space Pods, Systemics and other renovation type projects. By programming projects concurrently, this leads to a more expedient commence toward construction, once State funding is received.	\$7,500,000
	Future Qualified Zone Academy Bond (QZAB Projects)	Projects TBD	\$1,000,000
	Future Aging Schools (ASP) Projects	Projects TBD	\$1,000,000
	FY2018 TOTAL REQUEST		\$305,114,294

PROPOSED